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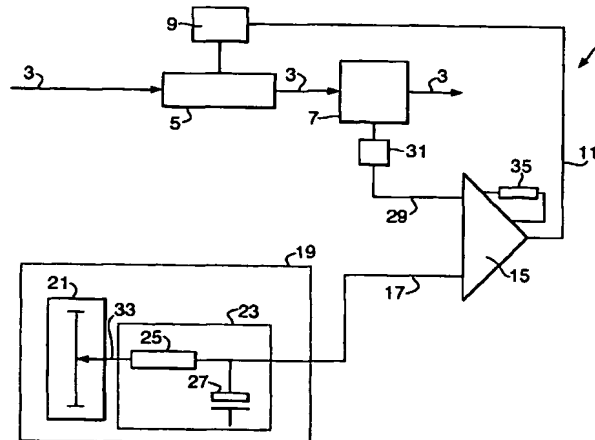
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(54) Title: **VOLUME FLOW CONTROLLER**



(57) **Abstract:** A volume flow controller (1) for controlling the flow of a gas mixture of variable proportions through a conduit (3) has a valve means (5) for regulating the flow of gas through the conduit, a drive means (9) for driving the valve means, a volumetric flow meter (7), such as a Pelton wheel, for measuring the flow of gas through the conduit, which provides a feedback signal (29) for comparison with a setpoint signal (17) in an amplifier (15) which generates an adjustment signal (11) which is fed to the drive means. The setpoint signal is generated by a setpoint signal generating means (19), which comprises a potentiometer (21) for inputting a value corresponding to a desired flow rate and a slowdown circuit (23) consisting of a resistor (25) and a capacitor (27) for delaying the change in the setpoint from the previous setpoint to the desired setpoint for a period of time sufficient to compensate for the delay in response inherent in the volumetric flow meter, thus providing smooth and stable control of the gas flow. Preferably, the potentiometer is a digital potentiometer (403), which voltage is variable by independent manipulation of rotary encoders (417).

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